

CLAIMS

We claim:

1. A clamp for gripping a part, comprising:
a body defining an opening closed at one end by a plate;
a first arm partially disposed within said opening and
extending outwardly therefrom, said first arm configured to engage a
5 first side of said part;

a second arm partially disposed about said body and spaced
from said first arm, said second arm configured to engage a second
side of said part; and,

an assembly including

10 a first member extending along a first axis through at
least portions of said first and second arms;

a second member disposed within a first bore in said
first arm and configured to receive said first member; and,

15 a third member disposed within a second bore in said
first arm, said third member disposed about a second axis extending
perpendicular to said first axis;

20 wherein rotation of said first member in a first rotational
direction causes movement of said second member along said first
axis in a first axial direction and corresponding movement of said
third member along said second axis whereby said third member
engages said plate in said body to secure a position of said first
and second arms relative to said body.

2. The clamp of claim 1 wherein said body has radially inner
and outer spherical surfaces, said first arm has a spherical surface
complementary to said inner spherical surface of said body and said
second arm has a spherical surface complementary to said outer
5 spherical surface of said body.

3. The clamp of claim 1 wherein a radially inner surface of
said body defines a first plurality of threads and said plate
includes a second plurality of threads configured to mate with said
first plurality of threads.

4. The clamp of claim 1 wherein at least one of said first and second arms includes a wear pad mounted thereon and configured to engage said part.

5. The clamp of claim 1, further comprising a washer disposed about said first member wherein movement of said second member along said first axis in said first axial direction compresses said washer.

6. The clamp of claim 1 wherein said second member has a first cam surface and said third member has a second cam surface configured to engage said first cam surface.

7. The clamp of claim 1 wherein said first and second cam surfaces extend parallel to one another.

8. The clamp of claim 1 wherein said first and second cam surfaces are disposed at an angle relative to both of said first and second axes.

9. A clamp for gripping a part, comprising:
a body defining an opening closed at one end by a plate;
a first arm partially disposed within said opening and
extending outwardly therefrom, said first arm configured to engage a
5 first side of said part;

a second arm partially disposed about said body and spaced
from said first arm, said second arm configured to engage a second
side of said part; and,

an assembly including

10 a fastener extending along a first axis through at least
portions of said first and second arms;

a nut disposed within a first bore in said first arm and
configured to receive said fastener; and,

15 a pushrod disposed within a second bore in said first arm,
said pushrod disposed about a second axis extending perpendicular to
said first axis

20 wherein rotation of said fastener in a first rotational
direction causes movement of said nut along said first axis in a
first axial direction and corresponding movement of said pushrod
along said second axis whereby said pushrod engages said plate in
said body to secure said first and second arms relative to said
body.

10. The clamp of claim 9 wherein said body has radially inner
and outer spherical surfaces, said first arm has a spherical surface
complementary to said inner spherical surface of said body and said
second arm has a spherical surface complementary to said outer
5 spherical surface of said body.

11. The clamp of claim 9 wherein a radially inner surface of
said body defines a first plurality of threads and said plate
includes a second plurality of threads configured to mate with said
first plurality of threads.

12. The clamp of claim 9 wherein at least one of said first
and second arms includes a wear pad mounted thereon and configured
to engage said part.

13. The clamp of claim 9, further comprising a washer disposed about said fastener wherein movement of said nut along said first axis in said first axial direction compresses said washer.

14. The clamp of claim 9 wherein said nut has a first cam surface and said pushrod has a second cam surface configured to engage said first cam surface.

15. The clamp of claim 14 wherein said first and second cam surfaces extend parallel to one another.

16. The clamp of claim 14 wherein said first and second cam surfaces are disposed at an angle relative to both of said first and second axes.

17. A clamp for gripping a part, comprising:
a body defining an opening closed at one end by a plate;
a first arm partially disposed within said opening and extending outwardly therefrom, said first arm configured to engage a first side of said part;

a second arm partially disposed about said body and spaced from said first arm, said second arm configured to engage a second side of said part; and,

means for securing said first and second arms relative to said body.

18. The clamp of claim 17 wherein said body has radially inner and outer spherical surfaces, said first arm has a spherical surface complementary to said inner spherical surface of said body and said second arm has a spherical surface complementary to said outer spherical surface of said body.

19. The clamp of claim 17 wherein a radially inner surface of said body defines a first plurality of threads and said plate includes a second plurality of threads configured to mate with said first plurality of threads.

• Atty. Dkt. No.: 60,680-572
Dana Ref. No.: 6470 MOH
Express Mail No.: ET931281053US

20. The clamp of claim 17 wherein at least one of said first and second arms includes a wear pad mounted thereon and configured to engage said part.

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